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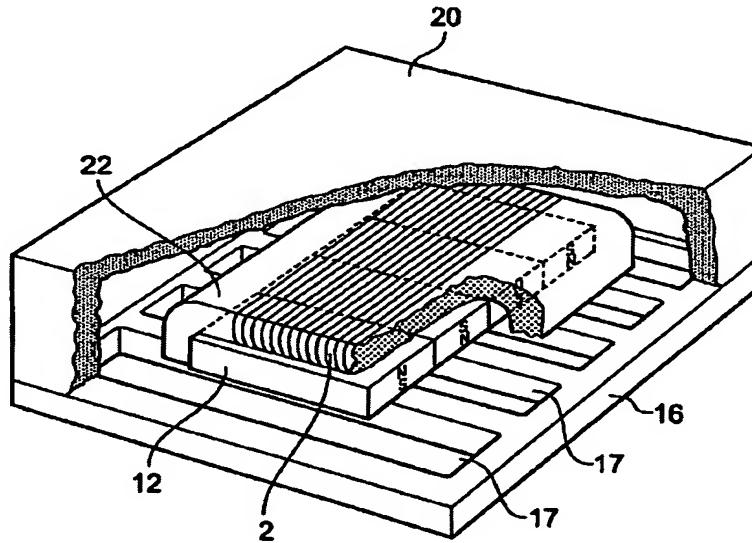
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- (26) Publication Language: English (75) Inventors/Applicants (for US only): PAIGE, David [GB/GB]; 23 Wilmington Close, Kenton Bank Foot, Newcastle upon Tyne, Tyne and Wear NE3 2SF (GB). MERCEL, Robert, Andrew [GB/GB]; 11 Falstone Crescent, Ashington, Northumberland, Tyne and Wear NE63 0TY (GB). SOWERBY, Ian [GB/GB]; 8 Kingsway, North Shields, Northumberland, Tyne and Wear NE30 2LY (GB).

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(54) Title: ELECTROMAGNETIC ACOUSTIC TRANSDUCER



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(57) **Abstract:** An electromagnetic acoustic transducer (12, 24) has one or a plurality of magnets for applying a DEC magnetic field to a material (4, 25) under test, and an electrical coil (2, 23) supplied by an alternating current source for providing an AC magnetic flux within the material under test. A wear plate (16, 26) engages with an slides along the surface of the material under test. The wear plate (16, 26) is of electrically conductive ferromagnetic material and has apertures (17, 31) therein. Thus, both the DC field and the ACT flux can penetrate the material under test and create ultrasonic vibration of that material.